

EXHIBIT BB

The IEEE Standard Dictionary of Electrical and Electronics Terms

Sixth Edition

Standards Coordinating Committee 10, Terms and Definitions
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polyline attribute

polyline attribute A characteristic of the line segments that make up a polyline. For example, color index, line type, line width. (C) 610.6:1991

polymarker A display element that consists of a set of locations, each of which is indicated by a marker.



polymarker

polymarker attribute A characteristic of the markers that make up a polymarker. For example, color index, marker size, marker type. (C) 610.6:1991

Polymorphic Programming Language An interactive, extensible language containing facilities for defining new data types, and operators. (C) 610.13:1993

polyphase (as applied to a relay) A descriptive term indicating that the relay is responsive to polyphase alternating electrical input quantities. *Note:* A multiple-unit relay with individual quantities responsive to single-phase electrical inputs is not a polyphase relay even though the several single-phase units constitute a polyphase set. (PE/SWG) C37.100-1992

polyphase ac fields (1) Fields whose space components may not be in time phase with each other. These fields will be the transversal fields produced by polyphase power lines. The field at any point can be described by the field ellipse; i.e., the magnitude and direction of the major semi-axis and the magnitude and direction of the minor semi-axis. The magnitude of the field strength is the magnitude of the major semi-axis. *Note:* For polyphase power lines, the electric field at a distance of 15 m or more away from the outer phases (conductors) can frequently be considered a single-phase field because the minor axis of the electric-field ellipse is only a fraction (less than 10%) of the major axis when measured at a height of 1 m. Similar remarks apply for the magnetic field. *See also:* ac electric field strength. (PE/T&D) 539:1990

(2) Fields whose space components may not be in phase. These fields will be produced by polyphase power lines. The field at any point can be described by the field ellipse—that is, by the magnitude and direction of the semimajor axis and the magnitude and direction of its semiminor axis. *Note:* Such fields are sometimes referred to as being elliptically polarized. Certain power line geometries can produce circularly polarized fields. For polyphase power lines, the electric field at large distances (≥ 15 m) away from the outer phases (conductors) can frequently be considered a single-phase field because the minor axis of the electric field ellipse is only a fraction ($< 10\%$) of the major axis when measured at a height of 1 m above ground level. *See also:* electric field strength. (PE/T&D) 644:1994

polyphase circuit An alternating-current circuit consisting of more than two intentionally interrelated conductors that enter (or leave) a delimited region at more than two terminals of entry and that are intended to be so energized that in the steady state the alternating voltages between successive pairs of terminals of entry of the phase conductors, selected in a systematic chosen sequence, have:

- the same period;
- definitely related and usually equal amplitudes, and
- definite and usually equal phase differences. (If a neutral conductor exists, it is intended also that the voltages from the successive phase conductors to the neutral conductor be equal in amplitude and equally displaced in phase. *Note:* For all polyphase circuits in common use except the two-phase, three-wire circuit, it is intended that the voltage

pool-cathode mercury-arc converter

amplitudes and the phase differences of the systematically chosen voltages between phase conductors be equal. For a two-phase three-wire circuit it is intended that voltages between two successive pairs of terminals be equal and have a phase difference of $p/2$ radians, but that the voltage between the third pair of terminals have an amplitude $(2)^{1/2}$ times as great as the other two, and a phase difference from each of the other two of $3/4$ p.d. radians. *See also:* zig-zag connection of polyphase circuits. (Std100) 270:1966w

polyphase machine (rotating machinery) A machine that generates or utilizes polyphase alternating-current power. These are usually three-phase machines with three voltages displaced 120 electrical degrees with respect to each other. *See also:* asynchronous machine. (PE) [9]

polyphase merge sort An unbalanced merge sort in which the distribution of the sorted subsets is based on a polynomial series such as the Fibonacci series. *See also:* cascade merge sort. (C) 610.5:1990

polyphase symmetrical set (1) **(polyphase voltages)** A symmetrical set of polyphase voltages in which the angular phase difference between successive members of the set is not zero, π radians, or a multiple thereof. The equations of symmetrical set of polyphase voltages represent a polyphase symmetrical set of polyphase voltages if k/m is not zero, $1/2$, or a multiple thereof. (The symmetrical set of voltages represented by the equations of symmetrical set of polyphase voltages may be said to have polyphase symmetry if k/m is not zero, $1/2$, or a multiple of $1/2$.) *Note:* This definition may be applied to a two-phase four-wire or five-wire circuit if m is considered to be 4 instead of 2. It is not applicable to a two-phase three-wire circuit. (Std100) 270:1966w

(2) **(polyphase currents)** This definition is obtained from the corresponding definitions for voltage by substituting the word current for voltage, the symbol I for E , and β for α wherever they appear. The subscripts are unaltered.

polyphase synchronous generator (electric installations on shipboard) A generator whose ac circuits are so arranged that two or more symmetrical alternating electromotive forces with definite phase relationships are produced at its terminals. Polyphase synchronous generators are usually two-phase, producing two electromotive forces displaced 90 electrical degrees with respect to one another, or three-phase, with three electromotive forces, displaced 120 electrical degrees with respect to each other. (Polyphase generators as used for marine service are generally three-phase. For special cases they may be two-phase.) (IA) 45:1983r

polyplastic A synonym for polyethylene-coated, nylon-reinforced hose, usually considered to be nonconductive. (In terms of this guide, the hose is used to carry water.) (PE/T&D) 957:1995

polyplexer Equipment combining the functions of duplexing and lobe switching. (AE) 686:1990w

poly-sol Plastic additive used in some washing applications to break down surface adhesion. (PE/T&D) 957:1987s

polyvinyl chloride An insulator in cable coatings and coaxial cable foam compositions. (C) 610.7:1995

pondage (power operations) Hydroreserve and limited storage capacity that provides only daily or weekly regulation of streamflow. (PE) 858:1987s

pondage station A hydroelectric generating station with storage sufficient only for daily or weekend regulation of flow. *See also:* generating station. (PE/T&D) [10]

pon-on-n solar cells (photovoltaic power system) Photovoltaic energy-conversion cells in which a base of n-type silicon (having fixed positive holes in a silicon lattice and electrons that are free to move) is overlaid with a surface layer of p-type silicon (having fixed electrons in a silicon lattice and positive holes that are free to move). (AE) [41]

pool-cathode mercury-arc converter A frequency converter using a mercury-arc pool-type discharge device. (IA) 169:1955w, 54:1955w

pool rectifier

pool rectifier A gas-filled rectifier with a pool cathode, usually mercury. (ED) [45], [84]

pool tube A gas tube with a pool cathode. *See also:* electronic controller. (ED) [45]

POP See: point of presence.

pop See: pull.

populate See: load.

population (1) **(data management)** The number of records in a file or database. (C) 610.5:1990

(2) **(utility power systems)** Transformers that have given common specific characteristics. (PE) C57.117-1980r

population, conceptual (results from a measurement process) The set of measurements that would result from infinite repetition of a measurement process in a state of statistical control. (IM) 470:1972w

population inversion (laser maser) A nonequilibrium condition of a system of weakly interacting particles (electrons, atoms, molecules, or ions) which exists when more than one-half of the particles occupy the higher of two energy states. (LEO) 586:1980w

popup menu A menu that appears outside of menu bar when requested, usually as the result of pressing BMenu or KMenu. (C) 1295:1993

pores (electroplating) Micro discontinuities in a metal coating that extend through to the base metal or underlying coating. *See also:* electroplating. (LEO) 586:1980w

port (1) **(electronic devices or networks)** A place of access to a device or network where energy may be supplied or withdrawn or where the device or network variables may be observed or measured. *Notes:* 1. In any particular case, the ports are determined by the way the device is used and not by its structure alone. 2. The terminal pair is a special case of a port.

3. In the case of a waveguide or transmission line, a port is characterized by a specified mode of propagation and a specified reference plane. 4. At each place of access, a separate port is assigned to each significant independent mode of propagation. 5. In frequency changing systems, a separate port is also assigned to each significant independent frequency response. *See also:* network analysis; optoelectronic device; waveguide. (ED/IM) [40], [45], [46]

(2) **(rotating machinery)** An opening for the intake or discharge of ventilating air. (PE) [9]

(3) **(rotating machinery)** (for a waveguide component) A means of access characterized by a specified reference plane and a specified propagating mode in a waveguide which permits power to be coupled into or out of a waveguide component. *Notes:* 1. At low frequencies the port is synonymous with a terminal pair. 2. To each propagating mode at a specified reference plane there corresponds a distinct port. (MTT) 146:1980w

(4) A segment or IRL interface of a repeater unit. (C/LM) 802.3u:1995

(5) **(broadband local area networks)** An electrical interface that has defined operating boundaries. The specific reference within IEEE Std 802.7:1989 assume ports to be 75 Ω transmission line interfaces that have an associated connector to which the signals pass. (C/LM) 802.7:1989

(6) A source or destination of data transferred by a Data Transfer class command into and/or out of an S-module. A port may be an on-module memory, on-module interface, a peripheral attached to a module, or some other mechanism to/from which data is passed. Within IEEE Std 1149.5:1995, a port is defined by a module address, a port ID meaningful to the MTM-Bus interface logic of that module, and the semantics and structure of packets by which data can be conveyed to and/or from that port. This latter often entails some description of the application to/from which data are passed. A port is selected/accessed/addressed via a Data Transfer class command. (C/TT) 1149.5:1995

(7) The physical interconnection point or an access point for a communication link. (C) 610.7:1995

portable filename character set

(8) An input or output connection between a peripheral device and a computer. *See also:* input-output port; mouse port; parallel port; serial port. (C) 610.10:1994

(9) A physical layer entity in a node that connects to either a cable or backbone and provides one end of a physical connection with another node. (C/MM) 1394:1995

(10) A signal interface provided by token ring stations, passive concentrator lobes, active concentrator lobes, or concentrator trunks that is generally terminated at a media interface connector (MIC). Ports may or may not provide physical containment of channels. *See also:* Bridge Port. (C/LM) 802.1G:1996, 8802.5:1995

(11) *See also:* link interface. (BA/C) 1355:1995

(12) *See also:* Bridge Port. (C/LM) 802.1G:1996

portability (1) **(software)** The ease with which a system or component can be transferred from one hardware or software environment to another. *Synonym:* transportability. *See also:* machine independent. (C) 610.12:1990

(2) **(application software)** The ease with which application software and data can be transferred from one application platform to another. (C/PA) 14252:1996

(3) The capability of being moved between differing environments without losing the ability to be applied or processed. (ATL) 1232:1995

portable (x-ray) X-ray equipment designed to be hand-carried (NEC/NESC) [86]

portable appliance An appliance which is actually moved or can easily be moved from one place to another in normal use. For the purpose of this article, the following major appliances other than built-in are considered portable if cord-connected: refrigerators, gas range equipment, clothes washers, dishwashers without booster heaters, or other similar appliances. (NEC/NESC) [86]

portable battery A storage battery designed for convenient transportation. *See also:* battery. (EEC/PE) [119]

portable character set The set of characters described in 2.4 that is supported on all of the computing systems. This term is contrasted against the smaller *portable filename character set*. (C/PA) 9945.2:1993

portable character string A sequence of characters from the portable character set. Within software definition files of exported catalogs, all such strings shall be encoded using IRV. (C/PA) 1387.2:1995

portable computer A personal computer that is designed and configured to permit transportation as a piece of handheld luggage. *Note:* U.S. Federal regulations limit use of the term "portable" to objects weighing no more than 21 pounds. *See also:* hand-held computer; laptop computer; notebook computer; transportable computer. (C) 610.10:1994, 610.2:1987

portable concentric mine cable A double-conductor cable with one conductor located at the center and with the other conductor strands located concentric to the center conductor with rubber or synthetic insulation between conductors and over the outer conductor. *See also:* mine feeder circuit. (EEC/PE) [119]

portable filename character set The set of characters from which portable filenames are constructed. For a filename to be portable across conforming implementations of this standard, it shall consist only of the following characters:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9 . -

The last three characters are the period, underscore, and hyphen characters, respectively. The hyphen shall not be used as the first character of a portable filename. Upper- and lowercase letters shall retain their unique identities between conforming implementations. In the case of a portable pathname, the slash character may also be used.

(C/PA) 1003.5:1992, 1003.5b:1995, 9945.1:1996, 9945.2:1993